

A B S T R A C T

Apparatus (1) is dedicated to plasma buildup of an optical fiber preform (2). The apparatus comprises
5 firstly a plasma torch (3) fed with plasma-generating gas by primary feed means (5) and arranged in such a manner as to enable a buildup material to be deposited on a primary preform (2) for building up in the presence of a silica-based material, and secondly secondary feed means
10 (9) arranged to introduce at least one reducing element upstream from the primary preform (2), the reducing element reacting to induce reduction of the nitrogen oxides produced by the interaction between nitrogen and oxygen of the air contained in the enclosure in which
15 buildup takes place in the presence of the plasma generated by the plasma torch (3).